

1. The device for distributing antibacterial product inside a human shoe comprising;
  - a. A source for antibacterial product - a tank with antibacterial spray;
  - b. A body embodied inside a fiber, on the ground of a shoe consisting of two parts: a tube connected both with the tank and with another part of the body – a “shower “ which is triggered to the front part, inside a shoe.
2. A shoe having different design from an ordinary shoe. The shoe must have the device claimed in the claim 1 with a “pocket” attached to the back , outside a shoe in which the tank full of antibacterial product is placed.

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### Description

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#### BACKGROUND OF THE INVENTION

Our life is inspired by a race for new items in many human accessories, including shoes. New features are added to the article of footwear in order to reduce the discomfort a foot undergoes while wearing shoes. Such kind of discomfort mostly considered being odor discharged by foot and shoe.

Even perfumers of ancient Egypt and Medieval Europe practised masking odor through the use of perfumes, colognes and sachets. Nowadays the existed inventions basically focus on solving the problem by presenting different kinds of devices inside a shoe that provide sufficient perfume to mask foot or shoe odors through controlled release of fragrance.

But such kind of approach cannot solve the mentioned problem completely because the discomfort a human being feels in a foot is caused not only by odor discharged by foot or by shoe. Every day a human being gets a lot of different kind of bacteria from the environment and on the other hand a foot itself discharges a lot of bacteria in the environment. Besides while wearing shoes a foot becomes swollen, sweaty and tired. So with only masking odor offered by the existed inventions can't be solved all kinds of these problems undergone by foot every day.

The present invention approaches to this problem on a more serious level that can really help to improve comfort in a human day life.

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## SUMMARY OF THE INVENTION

The object of the invention is a device for distributing antibacterial spray inside a shoe. This invention presents a new solution to the problems concerning discomfort caused by feet while wearing shoes.

The privilege of this solution to the existed ones is to deal with the problems identified in the background of the invention on a more serious level. The bottom line of the invention is not to mask the problem what is done by existed inventions but find out what causes this problem and fight with it.

The prior inventions concerning the mentioned problem concentrate on odor caused by foot and by shoe and present different kind of devices to mask it through perfume.

The present invention focuses not on odor but on what causes this odor, this is odor causing bacteria discharged by foot on one hand and by shoe on the other hand that makes a human being feel discomfort while wearing shoes.

Another difference from the existed inventions is to present a new kind of device which totally changes the design of a shoe. The part of the device of antibacterial spray is attached to the back outside a shoe. The other part of the device is embodied inside a shoe. With pumping the spray several times a day the antibacterial product is distributed all over the feet through the device.

The third distinguishing feature of the invention is to have not only masking but treating effect on foot that solves the existing problem in a better way.

## BRIEF DESCRIPTION OF THE DRAWINGS

The objects, features and advantages of the present invention will become more fully apparent from the accompanying drawings in which:

FIG. 1 is the view of the bottom of the shoe. It presents 1- the bottom of the "pocket" for the tank full of antibacterial spray, 2 - is a tube, 3 - a "shower".

FIG. 2 is a view of the completely assembled shoe in which: 4 - is a tank full of antibacterial product, 5. is the pocket where the tank is placed.

## DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

This invention presents a shoe with the device for distributing antibacterial product inside a shoe.

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In FIG.1, 1 - is the bottom part of the pocket where a tank full of antibacterial product is placed. It is attached to the shoe from outside and connected with 2 - the tube. After pumping the tank several times a day the antibacterial product is distributed through the tube and finally spread through 3 - a "shower" all over the feet inside a shoe, especially feet which are the mostly source for discharging bacteria.

FIG.2 presents the view of the completely made shoe that represents a totally new design of a human shoe. It presents 4 - the tank full of antibacterial product. This tank should be refilled with antibacterial product from time to time. That's why the tank is removable from the "pocket". The tank is placed in 5 - a special "pocket" attached to the back outside a shoe.

### DETAILED DESCRIPTION OF THE INVENTION

The present invention provides a device to distribute antibacterial spray and the method of using the device to distribute antibacterial product in a shoe.

For the purpose of this invention the term "shoe" includes any article of footwear in which the device can be used, such as men's and women's shoes, sneakers, military shoes and the like.

This invention has three main distinguished features to the already existed inventions:

1. The device: the prior inventions present devices that are mostly completely embodied inside a shoe. The present invention offers a new approach to the position of the device. According to this position the design of a shoe is totally changed. That makes a shoe more interesting and attractive.

The device for antibacterial spray presented by this invention includes two parts: a source for antibacterial product and a body consisting of two parts:

- 1) **Antibacterial source** which is a special dispenser that discharges a controlled amount of antibacterial product. This is a tank attached to the back part, outside a shoe.
- 2) **A body** embodied inside a fiber, under the ground of a shoe consisting of:
  - a. A tube connected with the tank
  - b. A "shower" connected with the tube and triggered to the front part inside a shoe.

The tank should be refilled with antibacterial product from time to time. The antibacterial product should be released from the tank by pumping several times a day. The discharged product can be dispensed through the device and from the holes distributed all over the feet and especially towards fingers that are mostly a source for discharging bacteria during a day.

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Another issue connected with this invention is to present the right antibacterial product in order to achieve maximum result. For this purpose it would be reasonable to use the revitalizing product that already exists on the market and successfully used against bacteria existing in a shoe. It is recommended to spray this product directly on feet or socks or hosiery inside shoes.

But the usage of this product through the device presented by this invention has the following privilege to the mentioned dispenser:

- a. This spray can be used without taking feet out of a shoe several times a day that can cause discomfort to a human being.
- b. The effectiveness of this antibacterial product distributed inside a shoe through the presented device lasts longer than the product applied directly and all at once to footwear.

2. The second advantage of this invention to the prior ones is that it is a totally new approach to the existing problem. It offers an improved solution to these questions. The existed inventions focus on undesirable odor discharged by foot and shoe and accordingly present different kinds of deodorizing devices that provide perfume in a shoe in order to mask feet and shoe odors through controlled release of fragrance. The present invention offers an improved solution to this problem:

It considers this matter on a more serious level. It focuses on the problem that causes this scent itself. This is an odor-causing bacteria that exists in the environment and is discharged by foot itself as well. This invention presents a device and method for spraying antibacterial product in a shoe.

3. The third distinguishing feature is that this invention has not only masking but treating effect on a foot as well.

- 1) As for masking function: perfume contained by antibacterial product refreshes and deodorizes feet.
- 2) It helps reduce odor-causing bacteria existing in the environment and discharged by foot itself.
- 3) Refreshing blend and peppermint oil and menthol instantly cools and comforts hot, swollen and tired feet.

According to these privileges this invention can give more relief and comfort to a human being in a daily life.

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